

MAR 14 2007

Patent

Attorney Docket No.: 12553/29

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS : Xm WONG et al.  
SERIAL NO. : 09/741,684  
FILED : December 18, 2000  
FOR : BONDING PAD OF SUSPENSION CIRCUIT  
GROUP ART UNIT : 2627  
EXAMINER : Brian E. MILLER

VIA FACSIMILE

M/S: APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office via facsimile number (571) 273-8300 or deposited with the United States Postal Service as first class mail in an envelope addressed to: M/S: APPEAL BRIEF - PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on	
Dated: March 14, 2007	Signature: <u>Barbara Vance</u> Barbara Vance

ATTENTION: Board of Patent Appeals and Interferences

APPEAL BRIEF

Dear Sir:

This brief is in furtherance of the Notice of Appeal, filed in this case on February 14, 2007.

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**1. REAL PARTY IN INTEREST**

The real party in interest in this matter is SAE Magnetics (H.K.) Ltd. (Recorded April 16, 2001; Reel/Frame 011915 / 0933).

**2. RELATED APPEALS AND INTERFERENCES**

There are no related appeals.

**3. STATUS OF THE CLAIMS**

Claims 19-24 are pending in the application. Claims 1-18 were previously cancelled. Claims 19-24 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 19-23 are rejected under 35 U.S.C. §102(b) as being anticipated by Albrecht et al., hereinafter ("Albrecht") (US 5,821,494). Claims 19-23 are rejected under 35 U.S.C. §102(b) as being anticipated by Ainslie et al., hereinafter ("Ainslie"), (US 4,761,699). Claims 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over either Albrecht or Ainslie. Claims 25-30 were cancelled without prejudice or disclaimer in the Response to Final Office Action dated January 16, 2007, and this cancellation was entered by the Examiner as indicated in the Advisory Action dated February 8, 2007.

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#### 4. STATUS OF AMENDMENTS

The claims listed on page A-1 of the Appendix attached to this Appeal Brief reflects the present status of the claims.

#### 5. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention generally relates to a circuit bonding pad for a magnetic recording head of a disk drive, and more specifically, to a circuit and suspension assembly for a disk drive magnetic head assembly.

The embodiment of independent claim 19 generally describes a suspension comprising a suspension bonding pad (*see e.g.*, page 3, line 28 – Figure 3) for electrically bonding a magnetic head terminal (*see e.g.*, page 2, line 30-32 – Figure 3), wherein said bonding pad includes a metal pad having a bonding substance applied as a surface finishing material (*see e.g.*, page 4, line 2-4 – Figure 3), the surface finishing material being heat treated prior to bonding to a surface (*see e.g.*, page 4, line 5-7 – Figure 3); and a slider bonding pad initially without bonding substance coupled to said suspension such that the bonding substance on said suspension bonding pad is reflowed so as to electrically couple the suspension bonding pad and the slider bonding pad (*see e.g.*, page 2, line 36-37 – Figure 3), wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider and the slider bonding pad with heat treatment (*see e.g.*, page 3, line 4-6 – Figure 3).

FIG. 1 is an example of a magnetic recording head and suspension circuit. FIG. 2 is a top view of a bonding pad for a suspension circuit in accordance with an embodiment of the

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present invention. **FIG. 2A** is a top view of a bonding pad for a suspension circuit in accordance with an embodiment of the present invention. **FIG. 2B** is a sectional view of the bonding pad of suspension circuit shown in **FIG. 2A**. **FIG. 3** is a flow chart showing an assembly method of an embodiment of the present invention.

## 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Are claims 19-24 indefinite under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention?

B. Are claims 19-23 anticipated under 35 U.S.C. §102(b) by Albrecht?

C. Are claims 19-23 anticipated under 35 U.S.C. §102(b) by Ainslie?

D. Is claim 24 rendered obvious under 35 U.S.C. §103(a) over either Albrecht or Ainslie?

## 7. ARGUMENT

A. Claims 19-24 are not indefinite under 35 U.S.C. §112, second paragraph.

With regard to the 35 U.S.C. §112, second paragraph rejection of claim 19, the Office Action asserts it is not readily apparent what structure of the slider bonding pad permits re-use. See Office Action dated 4/25/2006, paragraph 4. Applicants maintain this is an improper rejection, as it is readily apparent from both the claim and the specification it is not a structure of the bonding pad permitting such re-use, but rather the bonding pad itself (“...wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider

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and the slider bonding pad with heat treatment”). See Specification page 3, lines 4-6.

B. Claims 19-23 are not anticipated under 35 U.S.C. §102(b) by Albrecht.

and C. Claims 19-23 are not anticipated under 35 U.S.C. §102(b) by Ainslie.

Applicants further submit the cited references do not teach, suggest or describe at least “[a] suspension comprising ... wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider and the slider bonding pad with heat treatment” (e.g., as described in claim 19).

The Office Action asserts Albrecht and Ainslie describe the relevant limitation of claim 19, yet does not include any citation to a section in Albrecht or Ainslie allegedly describing the above limitation. See Office Action dated 11/14/2006, paragraphs 4 & 5. Albrecht is directed toward the disk drive art, but it does not describe at least a feature wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider and the slider bonding pad with heat treatment. Ainslie is directed toward a slider suspension assemblies and methods for attaching both, but it does not describe at least a feature wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider and the slider bonding pad with heat treatment. In order to support a proper §102(b) rejection, each and every limitation must be taught or described in the cited reference. Applicants submit the Office Action fails to cite to a portion of the cited references that teach or describe at least this limitation. As such, the current rejection is lacking.

The Office Action further asserts the claimed “heat treatment” is considered to be a manufacturing process limitation and/or disassembly step in a product by process claim. See Office Action dated 11/14/2006, paragraph 7. Applicants disagree. The limitation of claim 19 in

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question (quoted above) is directed toward a slider bonding pad, not heat treatment. The embodiment of claim 19 does not require heat treatment of the slider bonding pad at all.

Therefore, it cannot be a product by process claim, as there is no process described necessary to produce the embodiment described in claim 19. Claim 19 merely describes an embodiment wherein the slider bonding pad is such that it may be reused under a number of given conditions, including heat treatment. For at least these reasons, the embodiment product of claim 19 is not a product by process claim; as such, Applicants maintain the current rejection should be withdrawn.

D. Claim 24 is not rendered obvious under 35 U.S.C. §103(a) over either Albrecht or Ainslie.

As the cited reference fails to teach or describe at least the above limitation, the current rejection is lacking and should be withdrawn. Claims 20-24 are allowable as depending from an allowable independent claim.

### CONCLUSION

Appellants therefore respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's decision rejecting claims 19-30 and direct the Examiner to pass the case to issue.

The Examiner is hereby authorized to charge the appeal brief fee of \$500.00 and any additional fees which may be necessary for consideration of this paper to Kenyon & Kenyon Deposit Account No. 11-0600.

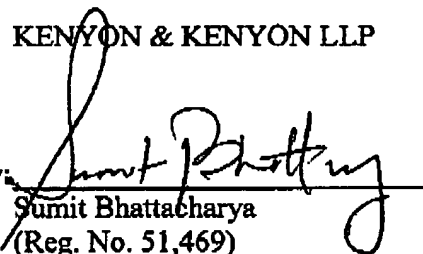
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Respectfully submitted,

KENYON & KENYON LLP

Date: March 14, 2007

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## APPENDIX

(Brief of Appellants Xm WONG al.  
U.S. Patent Application Serial No. 09/741,684)

### 8. CLAIMS ON APPEAL

1-18 (Cancelled)

19. A suspension comprising:

a suspension bonding pad for electrically bonding a magnetic head terminal, wherein said bonding pad includes a metal pad having a bonding substance applied as a surface finishing material, the surface finishing material being heat treated prior to bonding to a surface; and a slider bonding pad initially without bonding substance coupled to said suspension such that the bonding substance on said suspension bonding pad is reflowed so as to electrically couple the suspension bonding pad and the slider bonding pad, wherein the slider bonding pad enables the reuse of the suspension by removing the connection between a slider and the slider bonding pad with heat treatment.

20. The suspension as claimed in claim 19, wherein said bonding substance is solder.

21. The suspension as claimed in claim 19, wherein said bonding substance is a conductive polymer.

22. The suspension as claimed in claim 19, wherein said bonding substance is an adhesive.



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23. The suspension as claimed in claim 19, wherein said bonding substance is a film.

24. The suspension as claimed in claim 20, wherein a bump height for the solder is approximately 50-300  $\mu\text{m}$ , and a bump diameter for the solder is less than 180  $\mu\text{m}$ .

25-30 (Cancelled)

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9. **EVIDENCE APPENDIX**

No further evidence has been submitted with this Appeal Brief.

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**10. RELATED PROCEEDINGS APPENDIX**

Per Section 2 above, there are no related proceedings to the present Appeal.